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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/543,052	04/05/2000	Gopal Parupudi	MS1-508US	7216
22801	7590	05/24/2005		
LEE & HAYES PLLC 421 W RIVERSIDE AVENUE SUITE 500 SPOKANE, WA 99201			EXAMINER GARY, ERIKA A	
			ART UNIT	PAPER NUMBER
			2681	

DATE MAILED: 05/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/543,052	Applicant(s) PARUPUDI ET AL.	
	Examiner Erika A. Gary	Art Unit 2681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-31, 33-41 and 43-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-31, 33-41, 43-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/21/05; 4/4/05</u> ✓ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 33 is objected to because of the following informalities: it is dependent upon claim 32, which was canceled. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 17-19, 29, 33, 34, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's submission of prior art, Merriam, US Patent Number 6,401,051 (hereinafter Merriam) in view of applicant's submission of prior art, Wang, US Patent Number 5,539,922 (hereinafter Wang).

Regarding claims 17, 34, and 41, Merriam discloses a method, apparatus, and computer readable medium for providing determining the location of a computing device comprising: providing multiple location providers that are configured to provide location information that pertains to a current location of the computing device; receiving location information from the multiple location providers using a common interface; and using the information that is received from the multiple location providers to ascertain a current device location [fig. 2a; col. 3: line 61 – col. 4: line 5].

What Merriam does not specifically disclose is a hierarchical tree structure comprising multiple nodes that are each assigned a unique identification, the nodes representing geographical divisions of the Earth, the location service module being configured to traverse at least some of the nodes to provide the current device location. However, Wang teaches this limitation [abstract; col. 10; lines 42-49; col. 12: lines 18-41].

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Merriam to include Wang. The motivation for this combination as suggested by Wang, would have been to more efficiently and precisely determine the current location of a device in a point of space on the earth [abstract; col. 6: lines 13-17].

Regarding claim 18, Merriam discloses the computing device is a mobile computing device [col. 3: lines 5-8].

Regarding claim 19, Merriam discloses the computing device is a desktop computing device [col. 4: lines 10-31].

Regarding claim 29, Merriam discloses the computing device is a hand-held mobile computing device [col. 3: lines 5-8; col. 4: lines 10-16].

Regarding claim 33, Wang discloses providing a unique identification for one of the nodes of the hierarchical tree structure [col. 10: lines 42-49].

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4. Claims 17, 20-28, 30, 31, 33, 34-41, and 43-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fitch et al., US Patent Number 6,321,092 (hereinafter Fitch) in view of Wang.

Regarding claims 17, 34, 41, 43, 51, 52, and 59 Fitch discloses a method, apparatus, and computer readable medium for determining the location of a computing device comprising: providing multiple location providers that are configured to provide location information that pertains to a current location of the computing device; receiving location information from the multiple location providers using a common interface; and using the information that is received from the multiple location providers to ascertain a current device location [col. 6: lines 19-26].

What Fitch does not specifically disclose is a hierarchical tree structure comprising multiple nodes that are each assigned a unique identification, the nodes representing geographical divisions of the Earth, the location service module being configured to traverse at least some of the nodes to provide the current device location. However, Wang teaches this limitation [abstract; col. 10; lines 42-49; col. 12: lines 18-41].

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Fitch to include Wang. The motivation for this combination as suggested by Wang, would have been to more efficiently and precisely determine the current location of a device in a point of space on the earth [abstract; col. 6: lines 13-17].

Further regarding claim 43, Fitch discloses assigning a confidence parameter to location information for providing a measure of a provider's confidence in its location information; and sending the location information and the confidence parameter to a location service module to use the location information and the confidence parameter to ascertain a current device location [col. 11: lines 11-17].

Further regarding claim 52, Fitch discloses assigning an accuracy parameter to location information for providing a measure of the accuracy of a provider's location information; and sending the location information and the accuracy parameter to a location service module to use the location information and the accuracy parameter to ascertain a current device location [col. 11: lines 11-17].

Regarding claims 20, 45, and 53, it is well known in the art for location providers to self-monitor their operation and to inform a location service module of an operation irregularity. It would have been obvious to one of ordinary skill in the art at the time of the invention to include this feature to ensure that the location service module does not use bad information from a malfunctioning provider.

Regarding claim 31, it is well known to continue operation when one or more of the location providers stops functioning. It would have been obvious to one of ordinary skill in the art at the time of the invention to include this feature as there are multiple location providers and other providers can be used when one or more are malfunctioning.

Regarding claim 33, Wang discloses providing a unique identification for one of the nodes of the hierarchical tree structure [col. 10: lines 42-49].

Regarding claims 21-23, and 44, Fitch discloses assigning confidence parameters to the information provided to the location service module, the confidence parameters providing a measure of a provider's confidence in the information; and assigning accuracy parameters to the information provided to the location service module, the accuracy parameters providing a measure of the accuracy of a provider's information [col. 11: lines 11-17].

Regarding claims 24-27, 36-39, 47-50, and 55-58, Fitch discloses updating information provided to the location service module continuously, periodically, at specified times, and on the occurrence of specified events [col. 11: lines 19-23; col. 12: lines 1-5].

Regarding claims 28, 40, 46, and 54, Fitch discloses receiving a request from the location service module and updating the information that is provided to the location service module based on the request [col. 4: lines 18-20; col. 12: lines 1-5].

Regarding claim 35, Fitch discloses the common interface accommodates multiple location providers that are different [col. 6: lines 35-38].

Response to Arguments

5. Applicant's arguments filed February 18, 2005 have been fully considered but they are not persuasive. Applicants argue that Fitch and Wang are not combinable. However, the Examiner respectfully disagrees as both references relate to location finding [Fitch, col. 1: lines 9-13; Wang, col. 1: lines 11-13]. Fitch teaches the basis of the claimed invention, which is determining the location of a computing device

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comprising: providing multiple location providers that are configured to provide location information that pertains to a current location of the computing device; receiving location information from the multiple location providers using a common interface; and using the information that is received from the multiple location providers to ascertain a current device location. Wang is solely relied upon to teach the specific method of location finding, which is traversing a hierarchical tree structure comprising multiple nodes that represent physical or logical entities in order to ascertain the current device location. Therefore, the Examiner holds that the combination teaches the claimed invention.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erika A. Gary whose telephone number is 571-272-7841. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on 571-272-3865. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


ERIKA A. GARY
PRIMARY EXAMINER

EAG
May 19, 2005